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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/636,076	08/06/2003	Chien-Fang Lin	67,200-1112	9840

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EXAMINER	
CHAWAN, SHEELA C	
ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/636,076	LIN ET AL.	
	Examiner	Art Unit	
	Sheela C. Chawan	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,15-17,19 and 20* is/are rejected.

7)☒ Claim(s) *14 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The Examiner has approved drawings filed on 8/6/03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2,4-6,8-10,12-13,15-17 and19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Langley (US. 6,424,733 B2).

As to claim 1, Langley discloses an apparatus for visualization (column 4, lines 10-12) of conditions (column 3, lines 53-56) in the interior (fig 1,14) of at least one process chamber (fig1, 18), comprising (abstract):

An inspection chamber (fig 1, 20) for positioning in substantially visually (column 4, lines 10-12) unobstructed proximity to the at least one process chamber; and

a camera (a video receiver corresponds to camera, column 4, lines 29–33) provided in said inspection chamber for viewing of the interior of the at least one process chamber (column 3, lines 46- 49).

As to claims 2, 4,6,8,10,16 and 19 Langley discloses the apparatus of wherein said camera comprises a charge coupled device (fig 1, note the inspection station includes an image detector (camera) for detecting an image of the semiconductor wafer, and a processor for processing the detected image to detect defects in the semiconductor wafer, column 2, lines 48- 51, column 4, lines 7- 10, 29-33).

As to claims 5, 12 and 15 Langley discloses the apparatus of claim 1 further comprising a catch head carried by said camera for removing particles from said inspection chamber (note, laser 56 corresponds to catch head, column 4, lines 15-24).

As to claims 9 and 20, Langley discloses the apparatus of claim 1 further comprising a recording device operably connected to said camera for recording images from said camera (note video receiver correspond to camera where information is being recorded regarding the defects, column 4, lines 7-10).

As to claim 13, Langley discloses an apparatus for visualization of conditions in multiple process chambers of an integrated cluster tool having a central transfer chamber (column 1, lines 6-8), comprising:

an inspection chamber for positioning adjacent to the transfer chamber (column 3, lines 45- 65, column 4, lines 55- 62, column 5, lines 5- 13); and

a camera assembly having a camera provided in said inspection chamber for viewing of the interior of the process chambers (fig 1, note the inspection station

includes an image detector (camera) for detecting an image of the semiconductor wafer, and a processor for processing the detected image to detect defects in the semiconductor wafer, column 2, lines 48- 51, column 3, lines 45- 65, column 4, lines 7-10, 29-33).

As to claim 17, Langley discloses an apparatus for visualization of conditions in Multiple process chambers of an integrated cluster tool having a central transfer chamber (column 1, lines 6-8), comprising:

an inspection chamber for positioning adjacent to the transfer chamber (column 3, lines 45-65, column 4, lines 55-62, column 5, lines 5- 13);

a camera assembly having a camera provided in said inspection chamber for viewing of the interior of the process chambers (fig 1, note the inspection station includes an image detector (camera) for detecting an image of the semiconductor wafer, and a processor for processing the detected image to detect defects in the semiconductor wafer, column 2, lines 48- 51, column 3, lines 45- 65, column 4, lines 7-10, 29-33);

an electrostatic catch head (note, laser 56 corresponds to catch head, column 4, lines 15-24) carried by said camera assembly (column 3, lines 7- 25); and

a voltage source (note, inspection station 34 can also include test equipment 70 in fig 3, for performing electrical function tests (voltage is produced) or inspection equipment 74 for detecting defects formed on the semiconductor wafer 26) operably connected to said catch head for imparting an electrostatic charge to said catch head (column 4, lines 34 – 47).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3, 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langley (US. 6,424,733 B2), as applied to claims 1-2,4-6,8-10,12-13,15-17 and19-20 above and further in view of Pollock et al., (US.5,421,889).

Langley discloses methods and apparatus disposed in single and multi-chamber cluster tools for inspecting wafers. Langley fails to teach motion actuating mechanism operably engaging said camera for moving said camera in said inspection chamber.

Pollock discloses he invention attains the aforementioned objectives by providing methods and apparatus for inverting samples within a process which expose samples to a reactive plasma the invention provides improvements to systems for exposing a sample to reactive plasmas. The systems are of the type having at least one intermediate chamber, one or more process chambers, and a robot transport mechanism to transport the sample between the several chambers. The system comprises of:

a motion actuating mechanism operably engaging said camera for moving said camera in said inspection chamber (column 4, lines 54- 64, column 9, lines 14- 16). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Langley to include a motion actuating mechanism operably engaging said camera for moving said camera in said inspection chamber. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Langley by the teaching of Pollock in order to reduces the amount of contaminants which fall on the sample's front side, thereby improving the productivity of uncontaminated sample (as suggested by Pollock at column 5, lines 31- 35).

Allowable Subject Matter

4. Claims 15 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other prior art cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

LeCain et al., (US. 6,982,178 B2) discloses components and methods for use in electro-optic display.

Maydan et al., (US.5,292,393) discloses multichamber integrated process system.

Yoo et al., (US. 6,591,161 B2) discloses method for determining robot alignment.

Kato et al., (US. 6,467,187 B2) discloses vacuum processing apparatus and operating method therefor.

Lord et al., (US. 5,798,137) discloses method for silicon deposition.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan
Patent Examiner
Group Art Unit 2624
October 23, 2006

SHEELA CHAWAN
PRIMARY EXAMINER